RECEIVED
CENTRAL FAX CENTER
By facsimile
SEP 13 2006

REMARKS

This Amendment and Response is considered fully responsive to the Office action mailed July 13, 2006. Claims 1-9 and 12-39 were examined and stand rejected. Applicant has amended independent claims 1, 8, 20, 25, 30, and 31. No new matter has been added.

Interview Summary

The Applicant expresses sincere appreciation for the telephonic examiner interview conducted between the Examiner and the Undersigned, Thomas J. Osborne, Jr., on September 11, 2005.

During the interview, the undersigned discussed the invitation to amend the claims made by the Examiner on page 13 of the Office action dated July 13, 2006 and the Applicant's belief that such an amendment would place the claims in a condition for allowance.

Claim Rejections – 35 U.S.C. §103(a)

Claims 1-4, 7-9, 14, 15, 18-21, 30-32, 35, 37, 38, and 39

Claims 1-4, 7-9, 14, 15, 18-21, 30-32, 35, 37, 38, and 39 stand rejected under 35 U.S.C. §103(a) as being purportedly unpatentable over U.S. Patent No. 6,594,696 to Walker et al. ("Walker") in view of 6,650,347 to Nulu et al. ("Nulu"). The Applicant respectfully traverses this rejection for at least the following reasons.

Independent claims 1, 8, 20, 30, and 31, from which claims 2-4, 7, 9, 14, 15, 18, 19, 21, 32, 35, 37, 38, and 39 depend, have been amended, in response to the Examiner's invitation to amend the claims, to recite simultaneously displaying port information for each of the connected ports or for a plurality of the ports. Specifically, claim 1 now recites, "the expanded node simultaneously displays port information for each of the one or more ports having a connection to another device in the network." Claim 8 now recites, "simultaneously displaying port information for each of the one or more ports having an actual connection to another device in the network corresponding to the displayed connection paths." Claim 20 now recites, "simultaneously displaying port information for each of the ports." Claims 30 and 31 now recite, "the expanded displayed device node simultaneously displaying a plurality port information indicators."

By facsimile

As discussed with the Examiner in the telephone interview referenced above, Walker only permits selecting a single link at a time. Thus, Walker does not disclose teach or suggest simultaneously displaying port information for each of the connected ports or for a plurality of the ports as recited in the claims. Nor does Nulu disclose, teach, or suggest simultaneously displaying port information for each of the connected ports or for a plurality of the ports. Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claims 1-4, 7-9, 14, 15, 18-21, 30-32, 35, 37, 38, and 39 and allow claims 1-4, 7-9, 14, 15, 18-21, 30-32, 35, 37, 38, and 39.

Even without the amendments made in response to the Examiner's invitation to amend the claims, Applicant maintains that claims 1-4, 7-9, 14, 15, 18-21, 30-32, 35, 37, 38, and 39 are additionally allowable for at least the reasons previously argued in the prior Amendment and Response and repeated again herein.

Generally, Walker discloses displaying "object tips" in a network topology display. Using the system of Walker, a user may obtain data about a device or link in the network. However, Walker does not disclose or suggest including port information in an object tip associated with a device. Rather, port information is only shown in association with a link, not for a device. Thus, in order to obtain port information for a device, a user must select each link connected to that device one link at a time. Even then, only port information for a single port of the device is ever shown at the same time.

In contrast to the network topology display of Walker, Nulu discloses a software tool providing a resource tree that lists individual resources within a discrete piece of hardware. Using the system of Nulu, a user may configure individual resources within the piece of hardware but cannot view the network topology.

The Applicant respectfully submits that the Office has still failed to establish a prima facie case of obviousness relative to claim 1 and the other claims. The Office bears the initial burden of factually supporting any prima facie conclusion of obviousness. To meet this burden, the Office must show (1) some suggestion or motivation to combine the reference teachings; (2) a reasonable expectation of success; and (3) that the combined references teach or suggest all of the claimed features. The Office has failed to meet all three of the criteria.

By facsimile

The apparent extent of the Office's attempt to show some suggestion or motivation to combine the reference teachings amounts to the conclusion that it would have been obvious to combine the features of the references "to provide users with architectural perspectives that are rapidly obtainable." Office action dated February 2, 2006, page 4. However, the Office provides no explanation of how this objective addresses a problem suggested or motivated by the references or a combination thereof or how this objective could even be reasonably achieved by a combination of the references. The term "architectural perspectives" is used in Nulu to describe the internal architecture of a "box" or hardware device. In contrast, Walker's system is directed to interconnections between network devices, not architectural perspectives. Rather than displaying what exists within a hardware device, the network topology display of Walker displays what links multiple boxes. Accordingly, the Office's remarks fail to show any suggestion or motivation to combine the references, particularly to provide users with architectural perspectives that are rapidly obtainable.

Nevertheless, to support its conclusion, the Office describes Nulu as teaching "a computer-implemented method of displaying device port information in a hardware topology display". Office action, pg. 4, lines 4-6. The Applicant respectfully submits that the term "hardware topology display" is not found in Nulu and the Office's use of the term appears to be an attempt to textually imply some similarity between the cited references. However, the Office's proposed use of the term "topology" perverts the term's ordinary use, which relates to interconnections of network devices, and further conflicts with the use of the term in the context of Walker's network topology. Nulu merely discloses a resource tree of resources internal to a hardware device, not a network topology display, and nothing in the Office's remarks or the cited references explains any suggestion or motivation for combining these two distinct types of structures.

Notwithstanding the Office's remarks, the proposed combination is simply not suggested or motivated by the cited references. The Office ignores the explicit differences between Nulu's tree of resources within a hardware device and Walker's network topology display. A network topology display is described in Walker using the following language:

> Thus, as shown in FIG. 2, the network management station 3A displays a graphical representation 17 of the network topology, identifying

> each network device (PC, hub, switch, etc) by an appropriate icon which depicts an image of the device, and the network links which connect the network devices, by continuous lines connecting the relevant icons on the graphical representation 17 or map.

Walker, col. 4, lines 7-12. In stark contrast, a resource tree is disclosed by Nulu as a hierarchical listing of hardware resources within a given hardware device. Nulu neither discloses nor suggests any display of a network topology, individual network devices within a network topology, images of such devices, or network links connecting such devices. Instead, Nulu's resource tree is limited to an "architectural perspective" of resources within a single device. As such, the Office has failed to provide any showing as to why one of ordinary skill in the art would be motivated to combine the network topology display features of Walker with the resource tree features of Nulu.

In addition, even assuming arguendo that the Office has established a *prima facie* showing of a motivation to combine Walker and Nulu (which Applicant does not concede), the Applicant submits that one of ordinary skill in the art would not be motivated to combine the teachings of the references because the displayed device nodes in Walker are already "expanded," at least in the sense that Nulu shows expansion (see e.g., FIG. 4 showing S1000-1-72 with 3 ports and HUB10-1-72 with 4 ports). The Office has failed to show any reason why one of ordinary skill in the art would be motivated to combine the teachings of Walker and Nulu if there is no "expansion" available in a Walker device node.

Regarding the criterion of showing a reasonable expectation of success, the Office makes no attempt to provide an explanation of a reasonable expectation of success. The Applicant submits that Walker and Nulu cannot be combined because the Walker device nodes cannot be expanded in the sense that Nulu expands its resource tree entries – the Walker devices are already "expanded" in the Nulu sense.

Moreover, the Office has failed to show that the combined references teach or suggest all of the claimed features of claim 1. The references, individually or when combined, must teach or suggest every claimed feature. *See, e.g.*, MPEP § 2143 and *In re Royker*, 490 F.2d 981 (CCPA 1974). While the Office asserts that Applicant improperly attacked individual references, Applicant has shown that neither Walker nor Nulu teach or suggest certain claim features. Thus, the Office's proposed combination of Walker and Nulu likewise fails to teach or suggest these claim limitations.

By facsimile

Claim 1 recites, among other features, "displaying a device node in a network topology display" and "selectively expanding the displayed device node in response user selection of the device node, wherein the expanded node include port information for each of the one or more ports having a connection to another device in the network." The Office argues that Walker teaches all of the recited features of claim 1 except expansion of the displayed node in response to a user selection of the displayed node. The Applicant earnestly asserts that Walker further fails to teach any of the recited "selectively expanding" operation, particularly in light of the "displaying" operation.

Specifically, Walker fails to disclose or suggest both expanding a displayed device node in a network topology display as well as an expanded node that includes port information for each of the one or more ports having a connection to another device in the network. The Office appears to assert that the object tips displayed in Walker constitute the recited port information, but this assertion simply ignores recited features in the claim.

First, Walker only discloses tips relating to two distinct types of objects: (1) links and (2) devices, and neither type of tip constitute an expanded node including port information. A "link" tip in Walker is triggered in response to selection of a link and includes a port number for one port connected to the link. Nevertheless, claim 1 conditions expansion on selection of a displayed device node, which excludes a link tip as port information included in an expanded node. In contrast, a "device" tip in Walker is triggered in response to selection of a device but does not include any port information. The only information disclosed as being displayed in a device tip is a device name.

Second, neither type of tip displays port information about "each of the one or more ports [of the connection device] having a connection to another device in the network". No "device tip" is disclosed as displaying port information about each connected port of a device in an expanded node and a device tip is described only as including a device name. Even "link" tips offer only a port number for a single port and this port number is not included in an expanded node. As such, not only does Walker fail to disclose or suggest expanding a displayed node in a network topology, it also fails to disclose or suggest that the expanded node includes port information in response to user selection of the device node.

By facsimile

The Applicant notes that the Office rejected Applicant's previous arguments relating to each of the one or more ports having a connection to another device in the network, stating that Walker teaches displaying port information for a selected node for a port that is connected. See page 12 of the final Office action dated February 17, 2005. While Applicant strenuously disputed the Office's statement in the previous Amendment and Response dated April 18, 2005, the Office failed to respond at all to Applicant's contention in the most recent Office action. Specifically, Applicant argued that while Walker teaches displaying link information for a selected link, the link information is not relevant to this claim as it does not relate to a selected node. In contrast, Walker teaches displaying device information for a selected device, but the object tip for a device is not disclosed as including any port information whatsoever – only the device name.

The Office also argues that Walker discloses that "information for each and every port is displayed as a tool tip and is dependent on at which end of the link the pointer is held". But this argument is irrelevant to claim 1, which recites:

(1) expanding the displayed device node in response to a user selection of the device node;

(2) wherein the expanded node include port information for each of the one or more ports having a connection to another device in the network.

The Office's argument appears to suggest that a user could sequentially select individual links to eventually display port information for all of the connected ports of a given device, but even this reading of Walker does not disclose the recited features of claim 1. Walker's link tips are not "expanded" in response to a user selection of a device node, and neither type of tip provides port information about each connected port of the selected device. Further, the expanded node recited in claim 1 includes port information for each connected port of a device, which is triggered by selection of the device node. Even selection of a link only provides a port number for a single port in Walker, and therefore does not constitute a selected node. Therefore, even if the Office asserts that a link tip is an expanded node, a link tip fails to display port information for each of the connected ports in response to a user selection of the device node.

The Office further argues that Nulu discloses the recited claim features missing from Walker. The Applicant respectfully asserts that Nulu also fails to disclose or

By facsimile

suggest expanding a displayed device node in a network topology display, as Nulu only discloses a resource tree that does not display a network, a displayed device node in a network topology display, or connection paths coupling ports of the displayed device node to other devices in the network. Nulu's resources are merely resources within a piece of hardware, independent of any network topology or network topology display. That Nulu discloses expanding and contracting resource tree's entries does not mean that Nulu discloses or suggests expanding a displayed device node in a network topology display – an entry in a mere hierarchical list does not constitute a displayed device node in a network topology display. As such, Nulu fails to disclose or suggest the recited claim features missing from Walker. Thus, since neither of the references teach or suggest these claim features, even if they were improperly combined, a combination Walker and Nulu would likewise fail to teach or suggest these claim features.

Claims 2-4 and 7 depend from claim 1, which is believed allowable for at least the reasons stated above. Therefore, claims 2-4 and 7 are believed allowable for at least the same reasons as claim 1. Allowance of claims 2-4 and 7 is therefore requested.

Claim 8 recites similar features as claim 1, which is believed allowable for at least the reasons stated above. Therefore, claim 8 is believed allowable for at least the same reasons as claim 1. Allowance of claim 8 is therefore requested.

Claims 9, 14-15, and 18-19 depend from claim 8, which is believed allowable for at least the reasons stated above. Therefore, claims 9, 14-15, and 18-19 are believed allowable for at least the same reasons as claim 1. Allowance of claims 2-4 and 7 is therefore requested.

Claims 20 recites "the port information comprising an indication of the ports having an actual connection to another device in the network and the ports having no connection to the network". The Office fails to show any teaching of this recited feature in either Nulu or Walker but merely claims the feature is inherent in some unspecified reference "given that the topology displays devices and their port connections so that not displaying a port with the device would be an indication that the device has no port connection. The Applicant cannot guess the reference upon which the Office is relying because the Office has confused the display structures of both Nulu and Walker, incorrectly calling both structures a "topology". If the Office wishes to sustain this

By facsimile

rejection upon one of the cited references, it is required to specify the reference and provide a detailed explanation of how that reference discloses or teaches the recited claim features.

In anticipation that the Office will submit Walker as the basis of this rejection, the Applicant respectfully submits that Walker fails to disclose several features in claim 20 and, further, that the Office has failed to support its arguments of "inherency". First, Walker only displays a link tip containing a port number upon selection of a link. Second, the link tip does not display port information for "each of the ports of a device node, which is recited in claim 20. Third, Walker neither discloses nor suggests any display of port information for both connected and unconnected ports. The only ports shown in Walker are connected to other devices ("identifying each network device (PC, hub, switch, etc) by an appropriate icon which depicts an image of the device, and the network links which connect the network devices", Walker, col. 4, line9-12). It does not "necessarily follow" that displaying port information is a deliberate and necessary consequence of Walker's disclosure, and in fact, it is likely from the quoted language that only connected links (and therefore ports) are displayed in Walker – unconnected ports are hidden.

In fact, although it is less than clear from Walker's disclosure, one might infer that the displayed devices in Walker's network topology displayed include more ports than are displayed, in that one link tip is revealed to be connected to "Port 12" (Walker, col. 5, line 28 and FIG. 5) but the device is shown with only four links (i.e., to four ports). As such, it is unlikely that display of port information for unconnected ports is a deliberate and necessary consequent of Walker, because Walker appears to deliberately hide unconnected ports. Therefore, the Office has made no showing in support of its assertion of inherency.

Furthermore, as claim 20 has distinctly different claim elements as claims 3-4, the Applicant also submits that the rejection of claim 20 using similar rationale as claims 3-4 is improper. Nevertheless, claims 3-4 depend from claim 1, which is believed allowable for at least the reasons stated above. Therefore, claims 3-4 are believed allowable for at least the same reasons as claim 1. To the extent that there is any similarity between claim

20 and claim 1, claim 20 is also believed allowable for the previously discussed reasons relating to those similarities.

For the foregoing reasons, the Applicant requests that the rejection of claim 20 be withdrawn. Allowance of claim 20 is respectfully requested.

Claims 30 and 31 recite similar features as claim 1, which is believed allowable for at least the reasons stated above. Therefore, claims 30 and 31 are believed allowable for at least the same reasons as claim 1. Allowance of claims 30 and 31 is therefore requested.

Claims 32, 35, 37, and 38 depend from claim 31, which is believed allowable for at least the reasons stated above. Therefore, claims 32, 35, 37, and 38 are believed allowable for at least the same reasons as claim 31. Allowance of claims 32, 35, 37, and 38 is therefore requested.

Claims 5, 6, 12, 13, 23-26, 28, 33, and 34

Claims 5, 6, 12, 13, 23-26, 28, 33, and 34 stand rejected under 35 U.S.C. §103(a) as being purportedly unpatentable over U.S. Patent No. 6,594,696 to Walker et al. ("Walker") in view of U.S. Patent No. 6,650,347 to Nulu et al. ("Nulu") and in further view of U.S. Patent No. 5,261,044 to Dev et al. ("Dev"). The Applicant respectfully traverses the rejection for at least the following reasons.

Independent claims 1, 8, 20, 25, and 31, from which claims 5, 6, 12, 13, 23, 24, 26, 33 and 34 depend, have been amended, in response to the Examiner's invitation to amend the claims, to recite simultaneously displaying port information for each of the connected ports or for a plurality of the ports. Specifically, claim 1 now recites, "the expanded node simultaneously displays port information for each of the one or more ports having a connection to another device in the network." Claim 8 now recites, "simultaneously displaying port information for each of the one or more ports having an actual connection to another device in the network corresponding to the displayed connection paths." Claim 20 now recites, "simultaneously displaying port information for each of the ports." Claim 25 now recites, "the expanded view simultaneously displays port information for the portion of the connection ports having connection paths

By facsimile

to the other devices in the network." Claim 31 now recites, "the expanded displayed device node simultaneously displaying a plurality port information indicators."

As discussed with the Examiner in the telephone interview referenced above, Walker only permits selecting a single link at a time. Thus, Walker does not disclose teach or suggest simultaneously displaying port information for each of the connected ports or for a plurality of the ports as recited in the claims. Nor does Nulu or Dev disclose, teach, or suggest simultaneously displaying port information for each of the connected ports or for a plurality of the ports. Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claims 5, 6, 12, 13